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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/092,198

03/05/2002

Rajeev Manur

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03/07/2006

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EXAMINER

HAMANN, JORDAN J

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,198

Applicant(s)

MANUR ET AL.

Examiner

Jordan Hamann

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-30 and 60-79 is/are allowed.
- 6) ☒ Claim(s) 1-4, 31, 32, 53 and 54 is/are rejected.
- 7) ☐ Claim(s) 5-15, 33-52 and 55-59 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "140" has been used to designate both a series of steps in Figure 4 and external SRAM in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "142" has been used to designate both a step in Figure 4 and look up table in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "144" has been used to designate both a step in Figure 4 and an output field in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "146" has been used to designate both a step in Figure 4 and an output field in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "148" has been used to designate both a step in Figures 4 & 6 and an output field in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "150" has been used to designate both a series of steps in Figure 6 and LAG size table in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "152" has been used to designate both a step in Figure 6 and an output field in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "154" has been used to designate both a step in Figure 6 and an incrementor in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "156" has been used to designate both a step in Figure 6 and a LAG length in Figure 7.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 2 Element 72, Figure 4 Elements 140 & 142, Figure 6 Elements 150 & 152, Figure 7 Element 15, Figure 8 Elements 200, 202 & 208 and Figure 9A Element 149.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Element 44E on page 18 line 11 and Element 232 on page 19 line 17.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the

filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to contain Figure 11 mentioned in the description on page 21 line 10 through page 22 line 18. See MPEP § 601.01(g).

No new matter may be introduced in the required drawing.

Specification

The disclosure is objected to because of the following informalities: page 7 line 30 "34, 40" should be --34-40--, page 8 line 18, "packet-forwarding circuitry 44" should be --packet processor 44--for clarity, page 13 line 24 "LAG-size table 100" should be --LAG-size table 150--, page 16 line 12 "by line 144 to grouping node163" should be --by line 164 to grouping node 163--, page 16 line 6 and page 17 line 17 "lookup table 142" should be --lookup table 142B--, page 17 lines 5, 23, 24 & 26 "next-hop table 176B" should be --next-hop table 176--, page 18 line 30 "selects and egress-port" should be --selects an egress-port--, page 19 line 8 "look-up table 142" should be --look-up table 142C--, page 19 line 13 "output field 145" should be --output field 141--, page 21 line 1 "distribution circuit 164" should be --distribution circuit 264--, and page 23 line 30 "second CAM 130B" should be --second CAM 120B--.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 31, 32, 53 & 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Bakke et al. (US 5,566,170).

With respect to claim 53, Bakke discloses a method of operating a multiple port network routing device, comprising:

receiving data (Figure 3 Element 200);

determining a destination address associated with the received data (Figure 3 Element 206);

determining a number of forwarding paths associated with the destination address; and

transferring the received data to select ones of the number of forwarding paths;

the select ones of the paths determined by a distribution algorithm that distributes path utilization across the available forwarding paths (Figure 4 Elements 246 & 248, and column 10 lines 44-59).

With respect to claim 54, Bakke discloses a method according to claim 53, in which the distribution algorithm establishes a forwarding path selection dependent upon

header information of the received data (Figure 4 Elements 246 & 248, and column 10 lines 44-59).

With respect to claim 1, Bakke discloses a network-processing device comprising:

- a first table to be addressed by content information of received data and to provide output data dependent upon the content information (Figure 4 Elements 246 & 248, and column 10 lines 44-59);

- a second table to be addressed by an output of the first table, and comprising an output to present output data dependent upon the output of the first table, the output comprising a plurality of fields (column 14 line 62 – column 15 line 7); and

- a multiplexer operable to obtain information of a next-hop transfer of the received data by selecting from amongst a plurality of next-hop designations (Figure 2 Element 130 and column 9 lines 46-51);

- separate fields of the plurality of the second table to originate at least two of the next-hop designations (column 21 lines 43-48).

With respect to claim 2, Bakke discloses a network-processing device according to claim 1, further comprising a processor to obtain content information from a header of the received data;

- the first table comprising a content addressable memory (Figure 2 Element 104);
- the processor to use the obtained content information to address the content addressable memory; and

the content addressable memory having separate pointer entries to be selectively output dependent on the content information presented thereto (Figure 4 Elements 246 & 248).

With respect to claim 3, Bakke discloses a network-processing device according to claim 2, in which

the second table is addressed by the output of the content addressable memory (column 14 line 62 – column 15 line 7);

the second table to output data for the separate fields dependent on the output of the content addressable memory;

a first field of the plurality to originate one of the plurality of next-hop designations; and

a second field of the plurality to originate at least another of the next-hop designations (Figure 2, column 9 lines 46-51, column 10 lines 44-59 and column 21 lines 43-48).

With respect to claim 4, Bakke discloses a network-processing device according to claim 3, in which the first field of the plurality is coupled directly to the multiplexer to provide one of the next-hop designations (Figure 2).

With respect to claim 31, Bakke discloses a multiple-link network-processing device for routing data, comprising:

a data processor to receive data and determine content information thereof (Figure 2 Element 104);

a content addressable memory having a plurality of pointers to be output dependent upon content information determined by the data processor (Figure 2 Element 128);

a second table comprising a plurality of selectable entries to be output dependent upon the pointers output by the content addressable memory (column 14 line 62 – column 15 line 7);

the second table output comprising a plurality of data fields;

a first data field of the plurality comprising a plurality of sub-fields;

at least a first plurality of the selectable entries of the second table comprising ID values for at least one sub-field of the first data field (Figure 2, column 9 lines 46-51, column 10 lines 44-59 and column 21 lines 43-48); and

a multiplexer to select one of the sub-fields of the first data field of the output of the second table to obtain an ID value for establishing an egress port for transfer of the received data (Figure 2 Element 130).

With respect to claim 32, Bakke discloses a multiple-link network-processing device according to claim 31, further comprising a next-hop table comprising a plurality of selectable entries having port identifications to be output when selectively indexed by a pointer value provided by the multiplexer's output (Figure 2, column 9 lines 46-51, column 10 lines 44-59 and column 21 lines 43-48).

Allowable Subject Matter

Claims 5-15, 33-52, 55-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16-30 & 60-79 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan Hamann whose telephone number is (571) 272-8564. The examiner can normally be reached on Monday-Thursday 8:30-5:30 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JJH

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